Portable Fuel Property Analyzer

The Portable Fuel Property Analyzer (PFPA) provides rapid fuel analysis anywhere it's needed: the plant, port, or field. Analysis is obtained in seconds using only a 2 mL fuel sample. The PFPA uses Near Infrared Spectroscopy combined with Advanced Multivariate Analysis to determine key fuel properties that influence engine performance.

The PFPA property determinations were developed and validated according to ASTM E1655 "Standard Practice for Infrared Multivariate Quantitative Analysis" using the property values of a diverse matrix of over 800 fuels from around the world determined by traditional ASTM methods.

Specifications

Fuel Properties: Developed and validated according to ASTM E1655

Operation:

- Warm-up Time: 1 minute
- Measurement Time: 10 seconds
- Sampling: 2 mL glass vials (disposable)

Analyzer:

- Measurement Type: Near Infrared Spectroscopy
- Optical Design: Dispersive (no moving parts)
- Light Source: Incandescent Lamp
- Detector: 256 pixel InHaAs
- Spectral Resolution: 3 – 6 nm (20 – 30 cm^{-1})
- Spectral Range: 1000 to 1600 nm
- Calibration: Factory set using NIST standard lamp

Analysis:

- Calibration: Each unit is calibrated with a diverse matrix of over 800 fuels
- System Check: Methylene Chloride Matrix
- Outlier Detection: Non fuel or contaminated fuel rejected

Data System

- Computer: Tablet with Windows 8.1
- Sample Storage: Over 1000 measurements
- Data Export: USB Port, Ethernet, WiFi
- Data Printout: Thermal Printer

Environment

- Dimensions: 7 x 13 x 16 in. (17.4x33x40.6 cm)
- Weight: 14 lbs (6.24 kg)
- Power: 120/240 VAC 50/60 Hz or 12 VDC with automotive lighter adapter. (Optional rechargeable battery pack)
- Operating Temperature: 35 - 95°F (0 - 40°C)

Properties Predicted by the PFPA

Diesel	Jet Fuel	Gasoline
Density/API Gravity	Density/API Gravity	Density/API Gravity
Distillation Fractions	Distillation Fractions	Distillation Fractions
Cetane Index	Freeze Point	Ethanol & MTBE
Viscosity (40°C)	Flash Point	BTEX
Flash Point	Fuel System Icing Inhibitor	Reid Vapor Pressure
Cloud Point		Octane (RON, MON, AKI)

Advantages / Features

- One Analyzer for all fuel types
- Only 2mL of fuel required
- No sample preparation required
- Analyzer warm-up takes <1 minute
- Complete analysis in 10 seconds
- Permanently aligned and calibrated
- Light weight, portable and easy to use
- Rugged design, no moving parts
- Analysis based on ASTM Data, developed and validated according to ASTM E1655
- Analysis software and tablet computer included
- Imbedded Printer
- Optional 4 hour rechargeable battery pack

Ordering Information

Catalog No.	
K24900	Portable Fuel Property Analyzer

Koehler INSTRUMENT COMPANY, INC.

www.camlab.co.uk
camlab
24 Norman Way Industrial Estate, Over, Cambridge, CB24 5WE
Tel: +44(0)1954 233 100 Fax: +44(0)1954 233 101
Email: sales@camlab.co.uk Web: www.camlab.co.uk